

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A nucleic acid vector for the expression of at least two cistrons comprising:

a. a promoter operably linked to a nucleotide sequence comprising at least two cistrons; and

b. a nucleotide sequence that provides IRES activity operably linked to each cistron subsequent to the first cistron, wherein at least one of the nucleotide sequences that provide IRES activity comprises a nucleotide sequence chosen from:

a nucleotide sequence comprising SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 1-215 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 45-239 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 45-215 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 1-74 and 187-239 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 1-74 and 187-215 of SEQ ID NO. 1;

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ ID NO. 1 by substitution of the nucleotides at positions 124-127 of SEQ ID NO. 1;

a nucleotide sequence comprising SEQ ID NO. 2;

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ

ID NO. 2 by substitution of the nucleotides at positions 136-139 of SEQ ID NO. 2; and
a nucleotide sequence that differs from a nucleotide sequence comprising SEQ
ID NO. 2 by substitution of the nucleotides at positions 126-129 of SEQ ID NO. 2-at
~~least one nucleotide sequence comprising SEQ ID NO. 1, or a fragment thereof~~
~~operably linked to at least one of said at least two cistrons, wherein said nucleotide~~
~~sequence comprising SEQ ID NO. 1, or fragment thereof, provides IRES activity.~~

2. (Previously Presented) The nucleic acid vector of claim 1, wherein at least one of said at least two cistrons comprises a reporter gene.
3. (Previously Presented) The nucleic acid vector of claim 1, wherein at least one of said at least two cistrons comprises a therapeutic gene.
4. (Previously Presented) A biological vector capable of expressing at least two cistrons comprising the nucleic acid vector of claim 1.
5. (Previously Presented) The biological vector of claim 4, wherein said biological vector is selected from poxvirus, adenovirus, herpesvirus, adeno-associated virus, retrovirus, and baculovirus.
- 6-11. (Canceled)
12. (Previously Presented) A host cell comprising the nucleic acid vector of claim 1.
13. (Previously Presented) The host cell of claim 12, wherein said host cell is an insect cell.

14. (Previously Presented) The host cell of claim 13, wherein said insect cell is a *Drosophila* cell.

15-16. (Canceled)

17. (Currently Amended) A method for expressing at least two cistrons comprising:
introducing into a host cell a nucleic acid vector comprising:

a. a promoter operably linked to a nucleotide sequence comprising at least two cistrons; and

b. a nucleotide sequence that provides IRES activity operably linked to each cistron subsequent to the first cistron, wherein at least one of the nucleotide sequences that provide IRES activity comprises a nucleotide sequence chosen from:

a nucleotide sequence comprising SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 1-215 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 45-239 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 45-215 of SEQ ID NO. 1;

a nucleotide sequence comprising nucleotides 1-74 and 187-239 of SEQ ID NO.

1;

a nucleotide sequence comprising nucleotides 1-74 and 187-215 of SEQ ID NO.

1;

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ ID NO. 1 by substitution of the nucleotides at positions 124-127 of SEQ ID NO. 1;

a nucleotide sequence comprising SEQ ID NO. 2;

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ

ID NO. 2 by substitution of the nucleotides at positions 136-139 of SEQ ID NO. 2; and
a nucleotide sequence that differs from a nucleotide sequence comprising SEQ
ID NO. 2 by substitution of the nucleotides at positions 126-129 of SEQ ID NO. 2-at-
~~least one nucleotide sequence comprising SEQ ID NO. 1, or a fragment thereof~~
~~operably linked to at least one of said at least two cistrons, wherein said nucleotide~~
~~sequence comprising SEQ ID NO. 1, or fragment thereof, provides IRES activity.~~

18-19. (Canceled)

20. (Currently Amended) A baculovirus transfer vector for the expression of at least two cistrons comprising:

- a. a polyhedrin promoter operably linked to a nucleotide sequence comprising at least two cistrons; and
- b. a nucleotide sequence that provides IRES activity operably linked to each
cistron subsequent to the first cistron, wherein at least one of the nucleotide sequences
that provide IRES activity comprises a nucleotide sequence chosen from:
 - a nucleotide sequence comprising SEQ ID NO. 1;
 - a nucleotide sequence comprising nucleotides 1-215 of SEQ ID NO. 1;
 - a nucleotide sequence comprising nucleotides 45-239 of SEQ ID NO. 1;
 - a nucleotide sequence comprising nucleotides 45-215 of SEQ ID NO. 1;
 - a nucleotide sequence comprising nucleotides 1-74 and 187-239 of SEQ ID NO.
1;
 - a nucleotide sequence comprising nucleotides 1-74 and 187-215 of SEQ ID NO.
1;

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ ID NO. 1 by substitution of the nucleotides at positions 124-127 of SEQ ID NO. 1;

a nucleotide sequence comprising SEQ ID NO. 2;

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ ID NO. 2 by substitution of the nucleotides at positions 136-139 of SEQ ID NO. 2; and

a nucleotide sequence that differs from a nucleotide sequence comprising SEQ ID NO. 2 by substitution of the nucleotides at positions 126-129 of SEQ ID NO. 2-at
~~least one nucleotide sequence comprising SEQ ID NO. 1, or a fragment thereof,~~
~~operably linked to at least one of said at least two cistrons, wherein said nucleotide~~
~~sequence comprising SEQ ID NO. 1, or fragment thereof provides IRES activity.~~

21. (Previously Presented) The baculovirus transfer vector of claim 20, wherein at least one of at least two cistrons comprises a reporter gene.

22. (Previously Presented) The baculovirus transfer vector of claim 20, wherein at least one of at least two cistrons comprises a therapeutic gene.

23. (Currently Amended) A recombinant baculovirus capable of expressing at least two cistrons in a host cell comprising a baculovirus genome comprising:

a. a polyhedrin promoter operably linked to a nucleotide sequence comprising at least two cistrons; and

b. a nucleotide sequence that provides IRES activity operably linked to each
cistron subsequent to the first cistron, wherein at least one of the nucleotide sequences
that provide IRES activity comprises a nucleotide sequence chosen from:

a nucleotide sequence comprising SEQ ID NO. 1;
a nucleotide sequence comprising nucleotides 1-215 of SEQ ID NO. 1;
a nucleotide sequence comprising nucleotides 45-239 of SEQ ID NO. 1;
a nucleotide sequence comprising nucleotides 45-215 of SEQ ID NO. 1;
a nucleotide sequence comprising nucleotides 1-74 and 187-239 of SEQ ID NO.
1;
a nucleotide sequence comprising nucleotides 1-74 and 187-215 of SEQ ID NO.
1;
a nucleotide sequence that differs from a nucleotide sequence comprising SEQ
ID NO. 1 by substitution of the nucleotides at positions 124-127 of SEQ ID NO. 1;
a nucleotide sequence comprising SEQ ID NO. 2;
a nucleotide sequence that differs from a nucleotide sequence comprising SEQ
ID NO. 2 by substitution of the nucleotides at positions 136-139 of SEQ ID NO. 2; and
a nucleotide sequence that differs from a nucleotide sequence comprising SEQ
ID NO. 2 by substitution of the nucleotides at positions 126-129 of SEQ ID NO. 2-at-
least one nucleotide sequence comprising SEQ ID NO. 1, or a fragment thereof
operably linked to at least one of said at least two cistrons, wherein said nucleotide
sequence comprising SEQ ID NO. 1, or fragment thereof, provides IRES activity.

24. (Previously Presented) A method for producing a recombinant baculovirus capable of expressing at least two cistrons comprising:

a. introducing a baculovirus transfer vector of claim 20 and a baculovirus genomic DNA into a baculovirus host cell so as to effect homologous recombination;

and

- b. isolating a recombinant baculovirus.

25. (Previously Presented) The method of claim 24, wherein said recombinant baculovirus is isolated by selecting plaques expressing at least one of said at least two cistrons.

26. (Previously Presented) A baculovirus host cell expressing at least two cistrons comprising the recombinant baculovirus of claim 23.

27-35. (Canceled)

36. (Withdrawn) A method of treating a patient comprising administering the nucleic acid vector of claim 1.

37. (Withdrawn) A method of treating a patient comprising administering the biological vector of claim 4.

38. (Withdrawn) A method of treating a patient comprising:

- a. excising a cell or tissue from said patient;
- b. introducing the nucleic acid vector of claim 1 into said excised cell or tissue; and
- c. reimplanting said cell or tissue into said patient.

39. (Withdrawn) A method of treating a patient comprising:

- a. excising a cell or tissue from said patient;
- b. introducing the biological vector of claim 4 into said excised cell or tissue;

and

- c. reimplanting said cell or tissue into said patient.

40-53. (Canceled)